

Abstract

To correct an RF signal, which has been obtained by a quadrature modulation, without performing quadrature demodulation. There are included an in-phase multiplier (14I), a quadrature multiplier (14Q), an adder (18), a power detector (56), and an error determining part (62). The in-phase multiplier (14I) outputs an in-phase conversion signal by mixing an in-phase local signal (L_o) of a predetermined local frequency with an in-phase correction user signal obtained by adding an in-phase user signal (I signal) to an in-phase correction signal of a sinusoidal voltage outputted from an in-phase correction signal output unit (32I). The quadrature multiplier (14Q) outputs a quadrature conversion signal by mixing a quadrature local signal (L_o), which is different in phase by 90 degrees from the in-phase local signal, with a quadrature correction user signal obtained by adding a quadrature user signal (Q signal) to a quadrature correction signal, which is different in phase by 90 degrees from the in-phase correction signal, from a quadrature correction signal output unit (32Q). The adder (18) adds the in-phase conversion signal to the quadrature conversion signal. The power detector (56) measures an output voltage of the adder (18). The error determining part (62) determines, based on the measurement result of the power detector (56), the error of the quadrature modulation.